

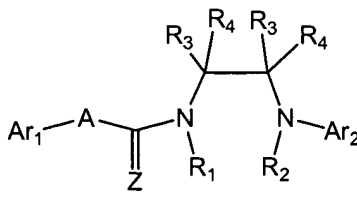
## Listing of Claims

This listing of claims will replace all prior versions and listings of claims in the application.

Claims 1-185 (cancelled).

Claim 186 (currently amended) A method according to claim 201, where the pain is the result of treating a mammal suffering from at least one symptom selected from symptoms of exposure to capsaicin, symptoms of burns or irritation due to exposure to heat, symptoms of burns or irritation due to exposure to light, symptoms of burns, bronchoconstriction or irritation due to exposure to tear gas, hot peppers or pepper spray, or and symptoms of burns or irritation due to exposure to acid, the method comprising administering to the mammal a therapeutic dose of a compound that is a high potency capsaicin receptor antagonist in an *in vitro* assay of capsaicin receptor antagonism, is not a capsaicin analog; wherein the therapeutic dose contains an amount of the compound that is effective to reduce severity of at least one of said at least one symptom.

187. (currently amended) The method of claim 186 wherein the capsaicin receptor antagonist is a compound ~~is a compound or salt of any of claims 1-176~~ of the formula:



or a pharmaceutically acceptable salt thereof,  
wherein:

A is absent or is selected from O, S, NR<sub>A</sub>, CR<sub>B</sub>R<sub>B</sub>', NR<sub>A</sub>CR<sub>B</sub>R<sub>B</sub>', CR<sub>B</sub>R<sub>B</sub>'NR<sub>A</sub>, -CR<sub>A</sub>=CR<sub>B</sub>- and C<sub>3</sub>H<sub>4</sub>; wherein R<sub>A</sub>, R<sub>B</sub> and R<sub>B</sub>' are independently selected at each occurrence from hydrogen and alkyl;

Z is oxygen or sulfur;

R<sub>1</sub> and R<sub>2</sub> independently represent hydrogen or alkyl;

R<sub>3</sub> and R<sub>4</sub> are independently selected at each occurrence from hydrogen; halogen; hydroxy; amino; cyano; nitro; -COOH; -CHO, optionally substituted alkyl; optionally substituted alkenyl; optionally substituted alkynyl; optionally substituted alkoxy; optionally substituted mono or dialkylamino; optionally substituted alkylthio; optionally substituted alkyl ketone; optionally substituted alkylester; optionally substituted alkylsulfinyl; optionally substituted alkylsulfonyl; optionally substituted mono- or di-alkylcarboxamide; optionally substituted -S(O)<sub>n</sub>NHalkyl; optionally substituted -S(O)<sub>n</sub>N(alkyl)(alkyl); optionally substituted -NHC(=O)alkyl; optionally substituted -NC(=O)(alkyl)(alkyl); optionally substituted -NHS(O)<sub>n</sub>alkyl; optionally substituted -NS(O)<sub>n</sub>(alkyl)(alkyl); optionally substituted saturated or partially unsaturated heterocycloalkyl of from 5 to 8 atoms, which saturated or partially unsaturated heterocycloalkyl contains 1, 2, or 3 heteroatoms independently selected from N, O, and S; optionally substituted aryl having from 1 to 3 rings; and optionally substituted heteroaryl having from 1 to 3 rings, 5 to 8 ring members in each ring and, in at least one of said rings, from 1 to about 3 heteroatoms independently selected from N, O, and S;

or any two R<sub>3</sub> and R<sub>4</sub> not attached to the same carbon are taken together to form an optionally substituted aryl ring; an

optionally substituted, saturated or partially unsaturated carbocyclic ring of from 5 to 8 members; or an optionally substituted, saturated, partially unsaturated or aromatic heterocyclic ring of from 5 to 8 members that contains 1, 2, or 3 heteroatoms independently selected from N, O, and S; and

Ar<sub>1</sub> and Ar<sub>2</sub> are the same or different and independently represent optionally substituted cycloalkyl; an optionally substituted heterocycloalkyl ring of from 5 to 8 atoms that contains 1, 2 or 3 heteroatoms independently selected from N, O, and S; optionally substituted aryl having from 1 to 3 rings; or optionally substituted heteroaryl having from 1 to 3 rings, 5 to 8 ring members in each ring and, in at least one of said rings, from 1 to about 3 heteroatoms independently selected from N, O and S, and

n is independently chosen at each occurrence from 0, 1 and 2.

Claims 188-198 (cancelled).

Claim 199 (new) A method according to claim 186, wherein the capsaicin receptor antagonist exhibits no detectable agonist activity in an *in vitro* assay of capsaicin receptor agonism.

Claim 200 (new) A method according to claim 186, wherein a dose of the capsaicin receptor antagonist that is five times the minimum dose needed to provide analgesia in an adult mammalian laboratory animal, in an animal model for determining pain relief, does not cause sedation when administered to an adult mammalian laboratory animal in an animal model assay of sedation.

Claim 201 (new) A method for treating pain in a mammal, the method comprising administering to the mammal a therapeutic dose of a capsaicin receptor antagonist that is not a capsaicin analogue.

Claim 202 (new) A method according to claim 201, wherein the capsaicin receptor antagonist is a high potency capsaicin receptor antagonist in an *in vitro* assay of capsaicin receptor antagonism.

Claim 203 (new) A method according to claim 201, wherein the capsaicin receptor antagonist exhibits no detectable agonist activity in an *in vitro* assay of capsaicin receptor agonism.

Claim 204 (new) A method according to claim 201, wherein a dose of the capsaicin receptor antagonist that is five times the minimum dose needed to provide analgesia in an adult mammalian laboratory animal, in an animal model for determining pain relief, does not cause sedation when administered to an adult mammalian laboratory animal in an animal model assay of sedation.

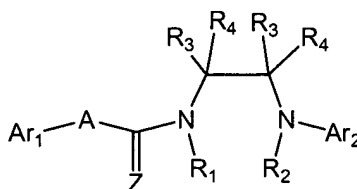
Claim 205 (new) A method according to claim 201, wherein the pain is neuropathic pain.

Claim 206 (new) A method according to claim 201, wherein the pain is peripheral nerve-mediated pain.

Claim 207 (new) A method according to claim 201, wherein the pain is associated with a condition selected from postmastectomy pain syndrome, stump pain, phantom limb pain, oral neuropathic pain, Charcot's pain, toothache, venomous snake bite, spider

bite, insect sting, postherpetic neuralgia, diabetic neuropathy, reflex sympathetic dystrophy, trigeminal neuralgia, osteoarthritis, rheumatoid arthritis, fibromyalgia, Guillain-Barre syndrome, meralgia paresthetica, burning-mouth syndrome, bilateral peripheral neuropathy, causalgia, sciatic neuritis, peripheral neuritis, polyneuritis, optic neuritis, postfebrile neuritis, migrating neuritis, segmental neuritis, Gombault's neuritis, neuronitis, cervicobrachial neuralgia, cranial neuralgia, geniculate neuralgia, glossopharyngeal neuralgia, migranous neuralgia, idiopathic neuralgia, intercostals neuralgia, mammary neuralgia, mandibular joint neuralgia, Morton's neuralgia, nasociliary neuralgia, occipital neuralgia, red neuralgia, Sluder's neuralgia, splenopalatine neuralgia, supraorbital neuralgia, vidian neuralgia, sinus headache, tension headache, migraine headache, labor, childbirth, intestinal gas, menstruation, cancer, and trauma.

Claim 208 (new) A method according to claim 201 wherein the capsaicin receptor antagonist is compound of the formula:



or a pharmaceutically acceptable salt thereof,  
wherein:

A is absent or is selected from O, S,  $\text{NR}_A$ ,  $\text{CR}_B\text{R}_B'$ ,  $\text{NR}_A\text{CR}_B\text{R}_B'$ ,  $\text{CR}_B\text{R}_B'\text{NR}_A$ ,  $-\text{CR}_A=\text{CR}_B-$  and  $\text{C}_3\text{H}_4$ ; wherein  $\text{R}_A$ ,  $\text{R}_B$  and  $\text{R}_B'$  are independently selected at each occurrence from hydrogen and alkyl;

Z is oxygen or sulfur;

$\text{R}_1$  and  $\text{R}_2$  independently represent hydrogen or alkyl;

$R_3$  and  $R_4$  are independently selected at each occurrence from hydrogen; halogen; hydroxy; amino; cyano; nitro;  $-COOH$ ;  $-CHO$ , optionally substituted alkyl; optionally substituted alkenyl; optionally substituted alkynyl; optionally substituted alkoxy; optionally substituted mono or dialkylamino; optionally substituted alkylthio; optionally substituted alkyl ketone; optionally substituted alkylester; optionally substituted alkylsulfinyl; optionally substituted alkylsulfonyl; optionally substituted mono- or di-alkylcarboxamide; optionally substituted  $-S(O)_nNHalkyl$ ; optionally substituted  $-S(O)_nN(alkyl)(alkyl)$ ; optionally substituted  $-NHC(=O)alkyl$ ; optionally substituted  $-NC(=O)(alkyl)(alkyl)$ ; optionally substituted  $-NHS(O)_nalkyl$ ; optionally substituted  $-NS(O)_n(alkyl)(alkyl)$ ; optionally substituted saturated or partially unsaturated heterocycloalkyl of from 5 to 8 atoms, which saturated or partially unsaturated heterocycloalkyl contains 1, 2, or 3 heteroatoms independently selected from N, O, and S; optionally substituted aryl having from 1 to 3 rings; and optionally substituted heteroaryl having from 1 to 3 rings, 5 to 8 ring members in each ring and, in at least one of said rings, from 1 to about 3 heteroatoms independently selected from N, O, and S;

or any two  $R_3$  and  $R_4$  not attached to the same carbon are taken together to form an optionally substituted aryl ring; an optionally substituted, saturated or partially unsaturated carbocyclic ring of from 5 to 8 members; or an optionally substituted, saturated, partially unsaturated or aromatic heterocyclic ring of from 5 to 8 members that contains 1, 2, or 3 heteroatoms independently selected from N, O, and S; and

Ar<sub>1</sub> and Ar<sub>2</sub> are the same or different and independently represent optionally substituted cycloalkyl; an optionally substituted heterocycloalkyl ring of from 5 to 8 atoms that contains 1, 2 or 3 heteroatoms independently selected from N, O, and S; optionally substituted aryl having from 1 to 3 rings; or optionally substituted heteroaryl having from 1 to 3 rings, 5 to 8 ring members in each ring and, in at least one of said rings, from 1 to about 3 heteroatoms independently selected from N, O and S, and n is independently chosen at each occurrence from 0, 1 and 2.

Claim 209 (new) A method for treating urinary incontinence in a mammal, the method comprising administering to the mammal a therapeutic dose of a capsaicin receptor antagonist that is not a capsaicin analogue.

Claim 210 (new) A method according to claim 209, wherein the capsaicin receptor antagonist is a high potency capsaicin receptor antagonist in an *in vitro* assay of capsaicin receptor antagonism.

Claim 211 (new) A method according to claim 209, wherein the capsaicin receptor antagonist exhibits no detectable agonist activity in an *in vitro* assay of capsaicin receptor agonism.

Claim 212 (new) A method according to claim 209, wherein the urinary incontinence is associated with detrusor hyperflexia of spinal origin or bladder hypersensitivity.

Claim 213 (new) A method for treating itching in a mammal, the method comprising administering to the mammal a therapeutic

dose of a capsaicin receptor antagonist that is not a capsaicin analogue, and thereby reducing itching in the mammal.

Claim 214 (new) A method according to claim 213, wherein the capsaicin receptor antagonist is a high potency capsaicin receptor antagonist in an *in vitro* assay of capsaicin receptor antagonism.

Claim 215 (new) A method according to claim 213, wherein the capsaicin receptor antagonist exhibits no detectable agonist activity in an *in vitro* assay of capsaicin receptor agonism.

Claim 216 (new) A method according to claim 215, wherein the itching is associated with a condition chosen from psoriatic pruritis, hemodialysis, aquagenic pruritus, vulvar vestibulitis, contact dermatitis, insect bite and skin allergies.